Climate Transparency

CLIMATE ACTION TRACKER

CLIMATE CHANGE PERFORMANCE index 2015

ASSESSING CLIMATE PROTECTION PERFORMANCE:
G20 COUNTRY PROFILE

Russia

This Country Profile assesses Russia's past and present actions to help mitigate climate change, and its Intended Nationally Determined Contribution (INDC) towards future global action. The profile summarises the respective findings of the Climate Change Performance Index (CCPI)[i] and Climate Action Tracker (CAT)[ii].

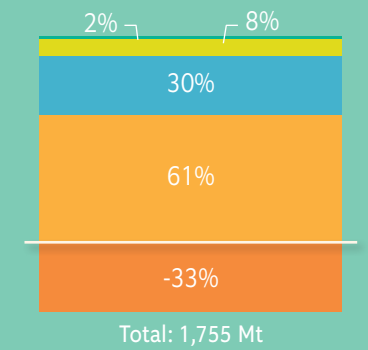
COUNTRY CHARACTERISTICS

KEY INDICATORS*	RUSSIA	G20
Population [million]	143	4,587
GDP per capita (PPP) [US$]	15,178	14,505
Share of global GHG emissions	5.0%	74.2%
Share of global GDP	2.6%	80.3%
Share of global population	2.0%	64.7%
GHG per capita [t CO_2e/cap]	12.2	7.2
Energy intensity of the economy (TPES/GDP [MJ/US$])	14.6	6.6
Carbon intensity of energy supply (CO_2/TPES [t CO_2/TJ])	52.4	63.1
Carbon intensity of the economy (CO_2/GDP [kg CO_2/US$])	0.76	0.42
Share of fossil fuels in primary energy supply	91.1%	83.4%
Share of coal in electricity production	15.7%	35.7%
Share of renewables in primary energy supply	2.4%	11.1%

*year 2012 (unless stated otherwise)
GDP = gross domestic product
GHG = greenhouse gas emissions (net emissions including sinks from agriculture, forestry, and other land uses)
TPES = total primary energy supply
PPP = purchasing power parity in prices of 2005

EMISSIONS AND EMISSIONS TRENDS

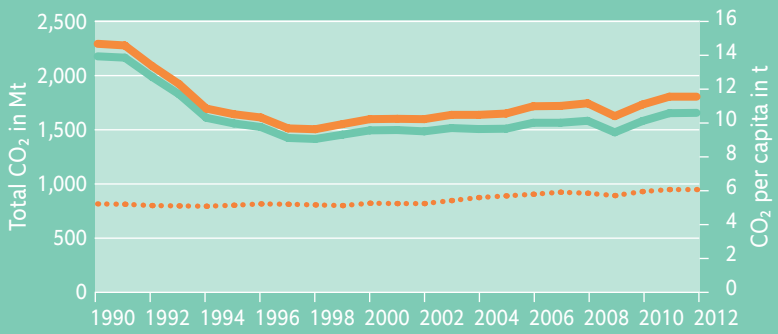
COMPOSITION OF GHG – RUSSIA 2012



F-Gases
N_2O**
CH_4**
CO_2**
CO_2 from LULUCF*
* from Energy & Industy
** including LULUCF

Source: UNFCCC 2015

ENERGY-RELATED CO_2-EMISSIONS – RUSSIA



Total CO_2 Emissions
CO_2 per capita
G20 CO_2 per capita

Source: IEA 2014

Carbon dioxide (CO_2) accounts for a relatively low share of total greenhouse gases, at 61%. Methane (CH_4) accounts for a relatively high 30%, from coal and gas production and agricultural activities. Russia has high negative emissions from Land Use, Land Use Change and Forestry (LULUCF). Energy-related CO_2 emissions fell sharply after the collapse of the Soviet Union in 1990, and its industrial economy. Since 1997, both total and per capita CO_2 emissions have risen. Russia's emissions are above the G20 average and rising. The CCPI evaluation ranks the country as very poor, with a negative trend.

CCPI EVALUATION OF RUSSIA'S EMISSIONS

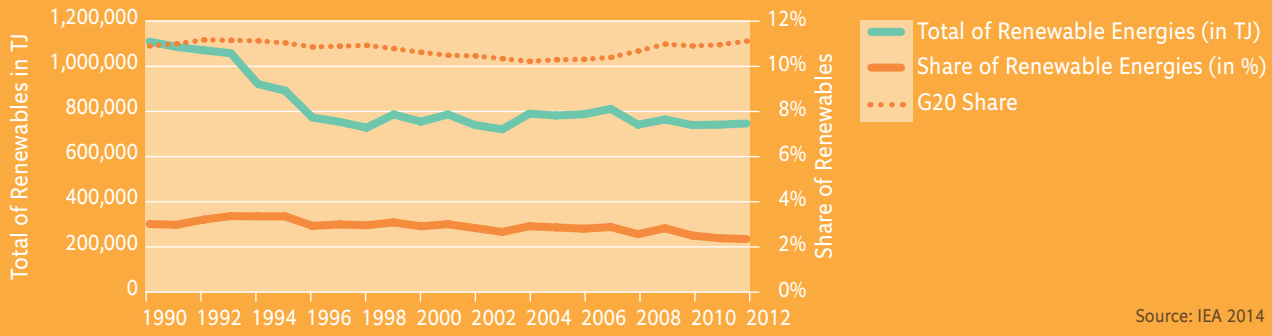
Source: CCPI 2015

DECARBONISATION

Decarbonisation of the global economy will be a crucial element for staying below the 2°C threshold. Two important steps towards achieving such decarbonisation are a shift from fossil fuels to renewable energy sources, and a reduction in carbon and energy intensity[iii].

RENEWABLE ENERGY

RENEWABLE ENERGY IN RUSSIA



Source: IEA 2014

The share of renewable energy in Russia's total energy supply declined slowly from 3% in 1990 to around 2% in 2012, which is far below the G20 average. The absolute production of renewable energy also declined in recent decades, in contrast with the trend in most G20 countries. Therefore Russia is evaluated as a very poor performer, with a negative trend.

CCPI EVALUATION OF RUSSIA'S RENEWABLE ENERGY

Source: CCPI 2015

ENERGY- AND CARBON INTENSITY

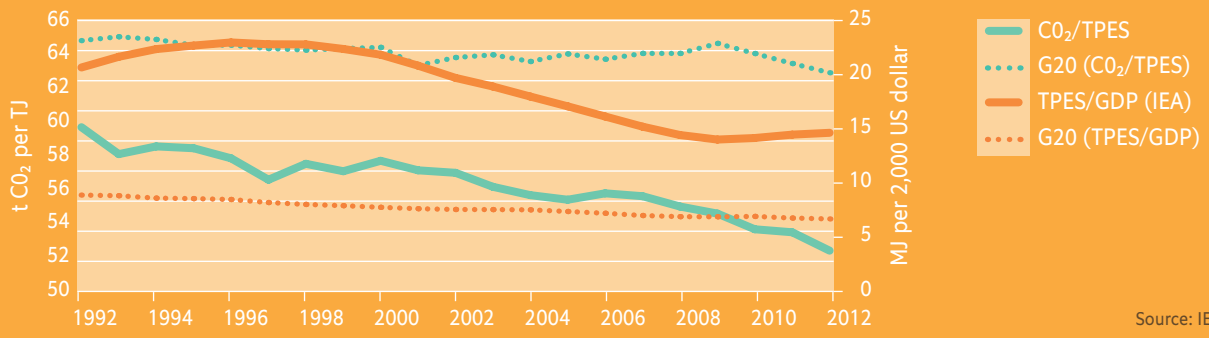
The measurement of carbon and energy intensity uses macroeconomic data. A country's progress towards decarbonisation is indicated by decoupling of its GDP growth from growth in carbon and energy intensity. The latter are measured as CO_2 emissions per unit of Primary Energy Supply (CO_2/TPES) and Primary Energy Supply per unit of GDP (TPES/GDP) respectively.

i Climate Change Performance Index is jointly published by Germanwatch and Climate Action Network Europe, a coalition of over 120 member organizations. The Index is 80% based on objective indicators of emissions trend and level, renewable energies and energy efficiency and 20% on national and international climate policy assessments by more than 300 experts from the respective countries. www.germanwatch.org/en/ccpi

ii Climate Action Tracker is an independent scientific analysis produced by four research organizations: Climate Analytics, Ecofys, the Potsdam Institute for Climate Impact Studies and the NewClimate Institute. www.climateactiontracker.org

iii Another indicator is energy efficiency. However, energy efficiency is complex to measure, requiring a sector by sector analysis, where comparable data sources across G20 countries are not available at present.

ENERGY- AND CARBON INTENSITY IN RUSSIA



Source: IEA 2014

The energy intensity of Russia's economy (TPES/GDP) declined until 2008, and has since stagnated at a relatively high level. The carbon intensity of energy supply (CO_2/TPES) has also declined since 1990, and is well below the G20 average. The CCPI ranks Russia's energy and carbon intensity as very poor. However, the fall in carbon intensity in the last five years contributes a positive trend.

CCPI EVALUATION OF RUSSIA'S ENERGY AND CARBON INTENSITY

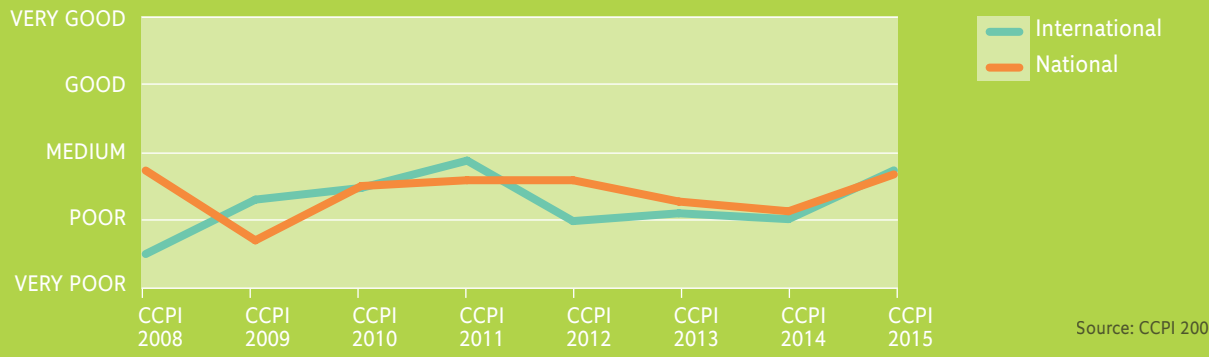
Source: CCPI 2015

CLIMATE POLICY PERFORMANCE

EVALUATION OF RECENT CLIMATE POLICY

The CCPI evaluates a country's performance in national and international climate policy through feedback from national energy and climate experts. The experts assess the country's performance in international negotiations, national policy making and in the implementation of climate policies.

RUSSIA'S CLIMATE POLICY



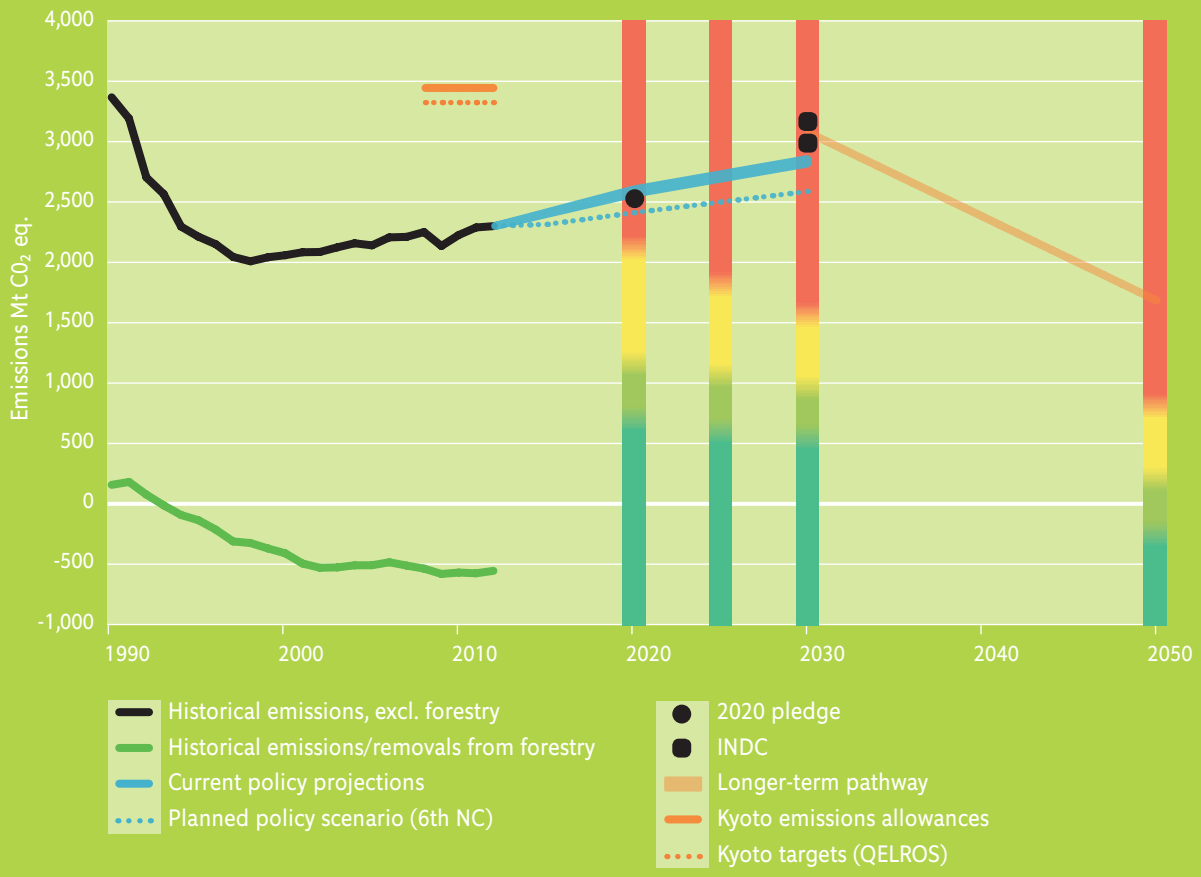
Source: CCPI 2008–2015

Russia's performance in international climate policy has varied between near average and very bad, according to the CCPI evaluation. Its performance shows recent improvement. At the national level, Russia's climate policy performance has varied between medium and relatively poor. National experts state that existing policies are driven by economic objectives rather than climate protection. They also identify poor implementation of policies.

CCPI EVALUATION OF RUSSIA'S CLIMATE POLICY

Source: CCPI 2015

COMPATIBILITY OF NATIONAL CLIMATE TARGETS WITH 2°C



Source: © www.climateactiontracker.org/Climate Analytics/Ecofys/ NewClimate/PIK

The Russian Federation submitted its Intended Nationally Determined Contribution (INDC) on 31 March 2015. It proposed to reduce its emissions of net greenhouse gases (GHG) by 25–30% below 1990 levels by 2030. After accounting for the land use and forestry sector, this is a reduction of only 6–11% below 1990 levels of industrial GHG emissions, and an increase of 30–38% compared with 2012 levels. Based on this target, CAT rates Russia "inadequate", meaning that if all governments showed such low ambition levels, global average warming would likely exceed 3–4°C. Current policies are projected to fail even to reach this INDC target, demonstrating an extremce case of lack of ambition.

Russia's emissions dropped substantially after 1990, and forestry emissions have turned from an emissions source into an emissions sink. Given Russia's projected forestry sink of around 0.5 Gt CO_2e in 2030, CAT's assessment is that Russia's proposed commitment for 2030 allows emissions of industrial GHG to grow significantly from the current levels to 3.0–3.2 Gt CO_2e in 2030 (excluding LULUCF). To achieve this proposed target, Russian needs to take no further action other than its currently implemented policies.

CAT EVALUATION OF RUSSIA'S INTENDED NATIONALLY DETERMINED CONTRIBUTIONS (INDC)